UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

WENDEROTH, LIND & PONACK, L.L.P. 1030 15th Street, N.W., Suite 400 East Washington, DC 20005-1503

EXAMINER

LEWIS, BEN

ART UNIT PAPER NUMBER

1726

DATE MAILED: 05/31/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,038	12/16/2005	Katsuhito Miura	2005_1996A	3768

TITLE OF INVENTION: CROSSLINKED POLYMER ELECTROLYTE AND USE THEREOF

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	08/31/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u> SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

ap in m

appropriate. All further indicated unless correct maintenance fee notifica	correspondence includir ed below or directed oth	ng the Patent, advance on the Patent, advance on the Patent, advance on the Patent I, by (a	rders and notification (a) specifying a new co	of m	aintenance fees wi condence address;	ill be and/or	mailed to the current of (b) indicating a separ	correspondence address as rate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.				
WENDEROTI 1030 15th Street Suite 400 East Washington, DC]	Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.					
<i>C</i> ,								(Depositor's name)
			ŀ					(Signature) (Date)
A DDI ICATIONI NO	EII ING DATE		EID CT NAMED INIVENT	FOR	T	A TTO	DNIEV DOCKET NO	
APPLICATION NO. 10/561,038	FILING DATE 12/16/2005		FIRST NAMED INVENT	IOK		ATTO.	2005 1996A	CONFIRMATION NO. 3768
		YMER ELECTROLYTE		1			2003_1770A	5700
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	UE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300		\$0		\$1810	08/31/2011
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	ss				
LEWIS	S, BEN	1726	429-307000					
 Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. 			(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.					
PLEASE NOTE: Un	less an assignee is ident th in 37 CFR 3.11. Comp	A TO BE PRINTED ON ' ified below, no assignee oletion of this form is NO	data will appear on th	e pat	tent. If an assigne ssignment.			cument has been filed for
Please check the appropr	riate assignee category or	categories (will not be pr	rinted on the patent):		Individual 🖵 Co	rporati	on or other private gro	up entity Government
4a. The following fee(s) are submitted: ☐ Issue Fee ☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies			4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) ☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).					
_ ~ .	tus (from status indicated							D 1 27()(2)
NOTE: The Issue Fee an	ns SMALL ENTITY state and Publication Fee (if require	uired) will not be accepte	d from anyone other th				TITY status. See 37 CF	e assignee or other party in
interest as shown by the	records of the United Sta	tes Patent and Trademark	COffice.					
Authorized Signature					Date			
Typed or printed name					Registration No	э		
This collection of inform an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223	tiality is governed by 35 d application form to the ions for reducing this but /irginia 22313-1450. DO	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the NOT SEND FEES OR (on is required to obtain 1.14. This collection is depending upon the in the Chief Information Of COMPLETED FORMS	or re s estin ndivid fficer S TO	etain a benefit by th mated to take 12 m dual case. Any cor y, U.S. Patent and 1 THIS ADDRESS.	e publ ninutes mment Traden SENI	ic which is to file (and to complete, including s on the amount of tim ark Office, U.S. Depan D TO: Commissioner for	by the USPTO to process); gathering, preparing, and e you require to complete tment of Commerce, P.O. or Patents, P.O. Box 1450,

PTOL-85 (Rev. 02/11) Approved for use through 08/31/2013.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMESIONER FOR PATENTS

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

DATE MAILED: 05/31/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,038	/561,038 12/16/2005 Katsuhito Miura		2005_1996A	3768
513 75	90 05/31/2011	EXAMINER		
*	LIND & PONACK,	LEWIS, BEN		
1030 15th Street, N Suite 400 East	l.W.,	ART UNIT	PAPER NUMBER	
Washington, DC 20005-1503			1726	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 337 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 337 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

	Application No.	Applicant(s)	
	10/561,038	MIURA ET AL.	
Notice of Allowability	Examiner	Art Unit	
	BEN LEWIS	1726	
	DEN ELWIS	1720	
The MAILING DATE of this communication appear All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED or other appropriate comr GHTS. This application is	in this application. If not includ nunication will be mailed in due	ed course. THIS
1. This communication is responsive to <u>Declaration Under 37</u>	C.F.R 1.132 filed on April	. 19 th , 2011.	
2. The allowed claim(s) is/are <u>1-8</u> .			
 3. Acknowledgment is made of a claim for foreign priority ur a) All b) Some* c) None of the: 1. Certified copies of the priority documents have) or (f).	
2. ☐ Certified copies of the priority documents have		ion No	
3. ☐ Copies of the certified copies of the priority does			ition from the
International Bureau (PCT Rule 17.2(a)).		od III tillo Hatiotial otago applico	
* Certified copies not received:			
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		le a reply complying with the re	quirements
4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give			NOTICE OF
5. CORRECTED DRAWINGS (as "replacement sheets") mus	t be submitted.		
(a) I including changes required by the Notice of Draftspers	on's Patent Drawing Revi	ew (PTO-948) attached	
1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date			
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment	or in the Office action of	
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t			e back) of
6. DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT			Note the
Attachment(s)	E 🗆 Notice of	Informal Detant Application	
 Notice of References Cited (PTO-892) Notice of Draftperson's Patent Drawing Review (PTO-948) 		Informal Patent Application Summary (PTO-413),	
_ ,	Paper No	o./Mail Date	
3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date	7. 🗌 Examiner	's Amendment/Comment	
4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	_	's Statement of Reasons for Allo	owance
	9. Other	,	

DETAILED ACTION

REASONS FOR ALLOWANCE

Claims 1-8 are allowed.

The prior art does not teach or suggest a polymer electrolyte composition including all of the claimed features. The most pertinent art includes Kohjiya et al. (U.S. Patent No. 5,837,157), Miura et al. (U.S. Patent No. 6,159,389) and Takatera et al. (U.S. Patent No. 6,159,638).

The prior art references do not teach or suggest a polymer electrolyte composition wherein

- 1. A polymer electrolyte composition comprising:
- (1) a crosslinked material of a polyether binary copolymer which has a main chain consisting of repeating units of formula (i) and crosslinking units of formula (ii), and which has a weight-average molecular weight of 104 to 107,

wherein R1 is an ethylenically unsaturated group having an ester linkage,

(2) an electrolyte solution comprising an aprotic organic solvent,

(3) an additive, as an optical ingredient, which comprises an ether compound having an ethylene oxide unit, and

(4) an electrolyte salt compound comprising a lithium salt compound, wherein the amount of the electrolyte solution is within the range of 100 to 10,000 parts by weight, based on 100 parts by weight of the polyether binary copolymer.

For these reasons, the claims are allowed over the prior art. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BEN LEWIS whose telephone number is (571)272-6481. The examiner can normally be reached on 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/561,038 Page 4

Art Unit: 1726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ben Lewis/ Examiner, Art Unit 1726

/Patrick Joseph Ryan/ Supervisory Patent Examiner, Art Unit 1726